

BEFORE
THE PUBLIC SERVICE COMMISSION OF
SOUTH CAROLINA
DOCKET NO. 2011-24-S

IN RE:)
)
Application of Palmetto Utilities,)
Inc. for adjustment of rates and)
charges for, and modification to)
certain terms and conditions related)
to the provision of sewer service.)
_____)

DIRECT TESTIMONY OF R. STANLEY JONES, P.E.
ON BEHALF OF PALMETTO UTILITIES, INC.

1
2 **Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.**

3 A. My name is R. Stanley Jones. My business address is 1710 Woodcreek Farms Road,
4 Elgin, South Carolina 29045.

5
6 **Q. WHERE ARE YOU EMPLOYED AND IN WHAT CAPACITY?**

7 A. I am employed as the South Carolina Regional President of Ni America Operating, LLC.
8 ("Ni America"). Ni America is owned by Ni America Capital Management, LLC, which
9 also owns Ni South Carolina Utilities, Inc., formerly known as Wateree Utilities Holding,
10 Inc., which is the sole shareholder of Palmetto Utilities, Inc.

1 **Q. WHAT IS YOUR EDUCATIONAL BACKGROUND AND YOUR TRAINING**
2 **AND WORK EXPERIENCE?**

3 A. I am a 1970 graduate of Clemson University with a Bachelor of Science degree in Civil
4 Engineering. I am a registered professional engineer and a registered land surveyor,
5 licensed to practice engineering and surveying by the South Carolina State Board of
6 Registration for Professional Engineers and Land Surveyors. I have over thirty-five years
7 of environmental engineering experience, including the design and operation of
8 wastewater treatment systems. I was first employed as an engineer by the Enwright
9 Associates engineering firm of Greenville in 1970. From 1975 through 1982, I was head
10 of its environmental engineering department. I left Enwright Associates in 1982 and
11 became employed as Vice President by Palmetto Utilities, then known as WildeWood
12 Utilities, Inc. I became President of WildeWood Utilities, Inc. in 1988. I currently serve
13 on the Environmental Planning Advisory Committee of the Central Midlands Council of
14 Governments, or "COG", which promulgates water quality management plans for
15 elimination of point source discharges under Sections 201 and 208(g) of the Federal
16 Clean Water Act and the National Pollutant Discharge Elimination System or "NPDES"
17 program authorized under Federal law. I have drafted facilities needs studies and other
18 planning documents required under Sections 201 and 208 of the Federal Clean Water Act
19 and have also taught water and wastewater treatment courses at Greenville Technical
20 College for several semesters.

1 **Q. WOULD YOU PLEASE DESCRIBE YOUR FORMER AND CURRENT ROLES**
2 **WITH PALMETTO UTILITIES?**

3 A. Yes. Prior to taking my current position with Ni America on January 7, 2010, my
4 responsibilities as President of Palmetto Utilities, Inc. included the day-to-day
5 management and oversight of the its wastewater collection and treatment operations,
6 provision of engineering services, and supervision of environmental compliance.
7 Additionally, I functioned as the business manager for the Company and was involved
8 with vendor and contractor relations and lender negotiation. I also oversaw Palmetto
9 Utilities' other seven employees. Effective January 7, 2010, I took my current position
10 with Ni America. In that position, I am responsible for overseeing all capital
11 improvements, repairs and maintenance, business development, and to a lesser degree
12 operations, for Palmetto Utilities. Indirectly, I continue to hold an equity interest in
13 Palmetto Utilities.

14
15 **Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY IN THIS PROCEEDING?**

16 A. The purpose of my testimony is to support the application for rate relief and provide the
17 Commission with an overview of Palmetto Utilities and its operations, its authorized
18 service area, an outline of the history of the company, a review of its performance from
19 an operational standpoint, a description of the facilities used and useful to the company
20 and some of the expenses incurred in providing sewer service, and an explanation of the
21 company's need for rate relief.

1 **Q. WHAT IS THE AUTHORIZED SERVICE AREA OF PALMETTO UTILITIES,**
2 **INC.?**

3 A. The present Commission authorized service area of the company encompasses
4 approximately ninety square miles and consists of unincorporated areas of northeastern
5 Richland County, the Town of Blythewood, and an adjoining area in southwestern
6 Kershaw County. In addition to ninety seven residential subdivisions, we serve a
7 commercial food distribution plant, twelve public school campuses, restaurants, and a
8 number of other commercial customers located in our authorized service area. Within
9 the residential developments proper, we serve not only the residential customers, but also
10 property owners associations, golf courses and clubhouses, and other amenity facilities.

11
12 **Q. HOW DID THE COMPANY COME TO ACQUIRE ITS CURRENTLY**
13 **AUTHORIZED SERVICE AREA?**

14 A. The establishment and expansion of our service area took place in stages. As the
15 Commission is aware, WildeWood Utilities, Inc. originally was authorized to serve the
16 WildeWood subdivision only. In the mid-1980's, our service area was condemned by the
17 East Richland County Public Service District. In 1987, Richland County agreed with us
18 that the company should undertake to provide service in the northeastern portion of the
19 county in areas which were not then served. In 1988, the company obtained authority
20 from the Commission to provide sewer service in northeastern Richland County and
21 southwestern Kershaw County and also constructed its wastewater treatment plant at
22 Bridgecreek. The company also acquired the Briarcliffe system from Briarcliffe

1 Associates in 1988 pursuant to Commission approval granted in 1987 and in 1994
2 acquired the Valhalla system from Valhalla Company, again after having received
3 Commission approval. With these two acquisitions, the company commenced serving
4 the Briarcliffe subdivision and the Valhalla subdivision, which is now known as the
5 Woodlands subdivision, in addition to various subdivisions in the originally authorized
6 northeastern Richland County and southwestern Kershaw County service area. In 1990
7 the company was designated by a Richland County Ordinance to be its agent for purposes
8 of discharging the county's function as the designated management agent under the
9 201/208 plan promulgated for the Wateree drainage basin by the COG. One goal of that
10 plan is the concentration of treatment functions in a single, regional facility. This is
11 achieved, in part, by eliminating multiple point source discharges created by smaller
12 systems. Pursuant to the 201-208 plan, the company retired the Bridgecreek and
13 Briarcliffe plants in 1994. In 1996, the company changed its name from WildeWood
14 Utilities, Inc. to Palmetto Utilities, Inc. in recognition of the fact that it no longer served
15 the WildeWood subdivision. The Valhalla wastewater treatment plant was taken out of
16 service in August 1999 at a significant cost to the Company. The flows from these three
17 plants have been diverted to the Spears Creek Regional Wastewater Treatment Plant
18 which has been constructed by Palmetto Utilities in the Wateree River drainage basin on
19 Spears Creek. An expansion to our service area was last approved by the Commission in
20 Order Number 2009-439, issued June 26, 2009, in Docket Number 2009-173-S. This
21 expansion added area in northeastern Richland County that includes part of the Broad

1 River drainage basin between U.S. Highway 321 and the Town of Blythewood and the
2 northeasternmost portion of Richland County to the Kershaw County line.

3
4 **Q. WHEN WAS A GENERAL RATE INCREASE LAST REQUESTED BY THE**
5 **COMPANY?**

6 A. The company last requested a general rate increase on December 9, 1999. By Order
7 Number 2000-0481 issued June 7, 2000, in Docket Number 98-653-S, the Commission
8 granted a portion of the relief requested and a greater increased monthly service rate was
9 thereafter placed into effect under bond. This monthly service rate became final on
10 December 14, 2001, pursuant to Order Number 2001-1119 and is the company's
11 currently authorized monthly service rate.

12
13 **Q. IS THE COMPANY PROVIDING WASTEWATER TREATMENT SERVICE TO**
14 **ITS CUSTOMERS IN CONFORMITY WITH ITS PERMITS FROM THE**
15 **SOUTH CAROLINA DEPARTMENT OF HEALTH AND ENVIRONMENTAL**
16 **CONTROL?**

17 A. Yes. As the letter attached to the Application as Exhibit "C" reflects, the company holds
18 all necessary permits from the Department of Health and Environmental Control, or
19 "DHEC", to operate the facilities. Since its last rate case, Palmetto Utilities has not been
20 cited by DHEC for any major infractions and has incurred no fines. The company is
21 committed to operating in an environmentally responsible manner. Rate relief is

1 necessary, however, to ensure our ability to recover the costs of environmental
2 compliance.

3
4
5 **Q. WHAT PERMITS DOES THE COMPANY HOLD FROM DHEC?**

6 A. The company is authorized to operate the Spears Creek Regional Wastewater Treatment
7 Plant using a non-discharge permit to apply treated wastewater to land. Palmetto Utilities
8 also holds an NPDES permit to discharge treated wastewater to surface waters. Each of
9 these permits authorize disposal of up to six million gallons per day of treated
10 wastewater; however, the NPDES permit authorizing a discharge of that volume of flow
11 into the Wateree River is not being used at this time. Instead, all flow from the treatment
12 plant is disposed of by way of land application under the non-discharge permit.

13
14 **Q. PLEASE DESCRIBE THE PLANT AND FACILITIES WHICH COMPRISE THE**
15 **SEWER SYSTEMS IN THE SERVICE AREA?**

16 A. The systems include the Spears Creek Regional Wastewater Treatment Plant, which
17 provides tertiary biological wastewater treatment, a series of gravity and force mains for
18 transportation, and collection lines. The treatment plant has a permitted capacity of six
19 million gallons per day. The transportation system features fifty five lift stations and the
20 force mains associated with them. With collection lines, Palmetto operates some three
21 hundred miles of mains and lines. The effluent is disposed of by way of rapid infiltration

1 in beds with multiple cells situated on two adjacent sites totaling one hundred forty acres
2 that are located in our service area.
3

4 **Q. SINCE THE LAST GENERAL RATE CASE, HAVE ANY UPGRADES AND/OR**
5 **IMPROVEMENTS BEEN MADE TO THE PLANT AND FACILITIES OF**
6 **PALMETTO UTILITIES, INC.?**

7 **A.** Yes. Since the last rate case, the Company has added over eleven thousand customers
8 and over twenty four million dollars in capital improvements. Palmetto has made over
9 six million dollars in upgrades to the Spears Creek Wastewater Treatment Plant alone,
10 which treats all of our customers' sewerage. To meet the needs of our customers,
11 Palmetto has also added two hundred twenty three miles of collection pipe, four thousand
12 one hundred ninety-six new manholes, forty five new lift stations and a corresponding
13 number of pumps, lift station control panels, security fencing, and privacy fencing near
14 customers' premises. Additionally, we have invested in monitoring and alarm equipment
15 designed to allow faster response times to wastewater overflows, which has been
16 installed at all fifty five of our lift stations. We have also installed ozone units in certain
17 of our lift stations as part of our ongoing odor control program to treat hydrogen sulfide
18 gas, or H₂S(g), that forms from sulfuric acid that occurs naturally when untreated
19 wastewater collects in lines, mains and lift stations.
20
21

1 **Q. WHAT HAS THE COMPANY'S EXPERIENCE BEEN WITH THE COSTS OF**
2 **OPERATION SINCE ITS LAST RATE INCREASE?**

3 A. Our expenses have increased. As one might expect, the passage of time since the
4 company's last rate case alone has resulted in increases in the prices for goods and
5 services the company must purchase to operate. Furthermore, the addition of eleven
6 thousand customers and the plant needed to serve them since the last rate case has caused
7 the company to incur increased variable operational expenses such as purchased power,
8 sludge disposal, salaries and third party operating costs, chemicals and the like. And,
9 other expenses, such as taxes, license fees and assessments have also risen.

10
11 **Q. YOU MENTIONED THAT SALARIES AND THIRD PARTY OPERATOR**
12 **COSTS HAVE INCREASED; TO WHAT DO YOU ATTRIBUTE THESE**
13 **INCREASES?**

14 A. Beginning in January of 2010, Palmetto Utilities' facilities have been operated by an
15 independent, third party utility operator. Prior to that date, operations were conducted by
16 Palmetto Utilities' own employees. The increase in customer base and the additions to
17 plant and facilities have required the company and, subsequently, our third party
18 operator, to hire an additional employee, require higher personnel performance levels,
19 and impose increased job responsibilities for personnel. We have increased the number
20 of man-hours required of our operators as a result of our emphasis on compliance with
21 the rate schedule provisions prohibiting the introduction of grease into our system. These

1 factors have, naturally, required increased employee and third party operator
2 compensation.

3
4 **Q. YOU MENTIONED HEIGHTENED ENFORCEMENT OF THE RATE**
5 **SCHEDULE PROHIBITION AGAINST INTRODUCTION OF GREASE INTO**
6 **THE PALMETTO UTILITIES SYSTEMS; WOULD YOU PLEASE EXPLAIN**
7 **WHY SUCH AN EFFORT IS REQUIRED AND WHAT STEPS IT INVOLVES?**

8 A. Yes. Under section 7 of our rate schedule, customers are not permitted to introduce
9 pollutants into our system. Grease is a pollutant under the regulations mentioned in this
10 rate schedule section. Under Section 8 of the rate schedule, the company is permitted to
11 require customers to upgrade existing grease traps to better prevent the introduction of
12 this pollutant into our system. As a result of the significant growth in the number of
13 restaurants in our service area, the company has found that problems associated with the
14 presence of grease in our system -- which primarily manifest themselves in blockages in
15 mains and lift stations -- have also grown. As a result, we have been required to become
16 more aggressive in the enforcement of standards the Company has adopted to prevent the
17 introduction of grease into our system, including requiring commercial customers to
18 upgrade deficient grease traps. We call these standards the "Sand, Oil and Grease
19 Interceptor Standards" and they are distributed to all commercial customers whose
20 businesses require a grease trap. A copy of these standards and a list of frequently asked
21 questions provided to commercial customers are attached to my testimony as RSJ-Exhibit
22 1.

1 **Q. DO RESIDENTIAL CUSTOMERS ALSO CONTRIBUTE TO THE PROBLEM**
2 **ARISING OUT OF GREASE IN THE SYSTEM?**

3 A. Yes, although not to the degree that commercial customers do. Mr. Melcher discusses
4 the Company's effort to address grease at the residential customer level.

5 **Q. ARE THERE SOURCES OF GREASE IN THE SYSTEM OTHER THAN**
6 **CUSTOMERS?**

7 A. There can be and we suspect that there are. We have observed over the last year or so an
8 increase in sanitary sewer overflows, or "SSOs", in our system – although the number of
9 them have been small compared to other utilities and none resulted in assessment of a
10 penalty. We are aware that other sewer utility systems in the midlands area of the state
11 have also experienced an increase in the number of SSOs in their systems. We are also
12 aware that two of the facilities in this area that formerly accepted restaurant grease for
13 disposal, C.E. Taylor in Pelion and BioTech near Dixiana, have ceased to do so. Based
14 upon the location of grease blockages that caused some of our SSOs, we strongly suspect
15 that the company has been the victim of illegal grease dumping into our manholes.

16 **Q. HAS THE COMPANY TAKEN ANY STEPS TO ADDRESS THIS ISSUE?**

17 A. Yes. When we replace old manhole covers, we bolt or weld shut the new covers to
18 prevent unauthorized access. We have also begun to require that pump-and-haul service
19 providers working for commercial customers in our service area provide proof of
20 disposal. And, we have recently begun to install motion activated game cameras in
21 certain areas of our system that we believe might be susceptible to illegal dumping.

1 **Q. WHAT IS THE PROPOSED RATE INCREASE DESIGNED TO ACCOMPLISH**
2 **FOR THE COMPANY?**

3 A. The proposed rate increase is designed to generate additional revenues that will
4 allow the Company to achieve a sound financial footing, to raise additional capital, and to
5 increase its earnings to a more reasonable level through fair charges to the customer.
6
7

8 **Q. WHY HAS THE COMPANY CHOSEN NOT TO SEEK A RATE INCREASE FOR**
9 **OVER 10 YEARS?**

10 A. Palmetto Utilities is mindful, as it has been in the past, of the effect that a rate increase
11 has on customers. During the last ten plus years, Palmetto's customer base has grown an
12 average of one thousand customers per year. During that period, we were able to forego
13 increases in our monthly service rates because revenues from increased monthly
14 customer billings from new customers almost offset the financial requirements for capital
15 additions and rising costs of operation.
16

17 **Q. WHY IS PALMETTO SEEKING AN INCREASE IN ITS MONTHLY RATES AT**
18 **THIS TIME?**

19 A. Since the worldwide financial crisis that occurred in 2008, Palmetto's rate of customer
20 growth has slowed, but its capital requirements and operational costs have continued to
21 increase. As the financial statements attached to the application on file reflect, the
22 company is now in need of rate relief.

1
2 **Q. YOU MENTIONED THAT THE COMPANY IS MINDFUL OF THE IMPACT AN**
3 **INCREASE IN RATES HAS ON CUSTOMERS; IS THE RELIEF REQUESTED**
4 **REASONABLE IN VIEW OF THE IMPACT ON CUSTOMERS?**

5 **A.** Yes, it is. Although the requested increase for a single family equivalent is nine dollars
6 per month, which represents an increase of approximately thirty percent, we believe that
7 this is reasonable in view of the passage of time since our current monthly service rates
8 were set, the company's investment in that period, and increases in the costs of doing
9 business over that time period. This amounts to an increase of less than one dollar per
10 year or three percent per year since our customers experienced an increase in their
11 monthly service rates. Also, even though we understand that our rates are set on the basis
12 of our own investment and expenses, I would note that the proposed monthly service rate
13 compares favorably to those charged by governmental utilities operating in areas
14 adjoining Palmetto's service area.

15 **Q. ARE THE RATES AND CHARGES PROPOSED FAIR, REASONABLE, AND**
16 **NECESSARY IN ORDER FOR THE COMPANY TO CONTINUE TO PROVIDE**
17 **A SAFE AND RELIABLE WASTEWATER TREATMENT SERVICE?**

18 **A.** Yes. The financial statements and the testimony of company witness Don
19 Clayton clearly reflect that in order to continue providing the type of service which we
20 have been providing, Palmetto must have rate relief. The company believes that the
21 proposed rates fairly distribute the cost to the consumer of providing those services, while
22 at the same time placing the utility on a more solid financial footing. This will hopefully

1 allow the company to attract additional capital to continue financing operations and fund
2 future plant expansions. We remain committed to continuing to provide quality service
3 in an environmentally responsible manner. It is our belief that the rates requested are
4 reasonable, fair, responsible, non-discriminatory and justified in light of customer needs,
5 the company's requirements to meet customer needs, and our commitment to do so in
6 compliance with regulations of this Commission, DHEC, and other regulatory agencies
7 with jurisdiction over the company.

8 **Q. IN ADDITION TO THE PROPOSED INCREASE IN THE MONTHLY SERVICE**
9 **RATE, DOES PALMETTO SEEK APPROVAL FOR OTHER CHANGES TO ITS**
10 **RATE SCHEDULE?**

11 A. Yes. We propose to modify section 1.c of the current rate schedule regarding billing for
12 service to multi-dwelling buildings consisting of four or more units to reflect the
13 company's discretion to offer tenant billing as permitted under South Carolina code
14 section twenty seven thirty three fifty. Section 4.c of the proposed rate schedule also
15 contains a change regarding charges for reconnection of service when disconnection has
16 been made by the use of an elder valve or similar device so as to comport with part four
17 of commission regulation one hundred three five thirty two. And, we propose to modify
18 the definition of Single Family Equivalent in section 11 of the rate schedule to reflect a
19 citation to the DHEC regulation which codifies that agency's guidelines for treatment
20 system design capacities. The company believes that all of these changes are appropriate
21 to conform with current statutory and regulatory language.
22

1 **Q. DOES THIS CONCLUDE YOUR TESTIMONY?**

2 **A. Yes, it does.**

Palmetto Utilities, Inc.

**SAND, OIL, AND GREASE
INTERCEPTOR STANDARDS**

As of August 1, 2009

The following is the policy statement and standards guide (Standard) of Palmetto Utilities, Inc. (PUI) for the design and installation of sand, oil, and grease interceptors. This statement contains PUI's interpretation and implementation of its rate schedule and other lawful authority.

A. GENERAL

1. It is the intent of this Standard to provide for specific standards for grease trap location, design, installation, construction, operation and maintenance so as to comply with the sewer use and structure. It should be noted that failure to comply with the Standard shall be considered a violation of applicable sections of the existing sewer use and rate schedule and consequently, subject to denial or discontinuance of sewer service.
2. The introduction of sand, oil, and grease into PUI's system represents the introduction of a pollutant into the system that has a detrimental impact on system integrity. By properly controlling the introduction of these pollutants through the use of interceptors and traps, the system integrity is maintained and operation and maintenance for these issues are minimized. Without this Standard and customer compliance with this Standard, the likelihood of overflows is increased, operation and maintenance costs are significantly increased, and the system operates less efficiently.
3. This Standard may be revised from time-to-time as PUI deems appropriate and in PUI's sole discretion.

B. DEFINITIONS

1. Food Service Establishment.

Any commercial facility discharging kitchen or food preparation wastewaters, including but not limited to restaurants, motels, hotels, cafeterias, hospitals, schools, bars, etc., any meat and/or fish processor, and any other facility which, in PUI's opinion, would require a grease trap installation by virtue of its operation. Such definition normally includes any establishment which is required to have a South Carolina Department of Health and Environmental Control (SCDHEC) food service license.

2. Grease Trap/Grease Interceptor.

A grease interceptor is a device which serves to trap and retain within its confines all suspended or semi-solid grease which may have passed through sinks, drains, or other fixtures. The retained grease is then kept from entering the service line which connects the business to the main connector sewer. Ultimately and on a timely basis, the grease must be removed by the owner/operator of the business

and disposed of in a satisfactory fashion. This may be by the owner/operator or by professionals who contract this type of work.

3. Oil Separator.

An oil separator is a device which serves to trap and retain oils or other flammable liquid to prohibit the introduction of same into the sewer system by accident or otherwise.

4. Sand Interceptor.

A sand interceptor is a device which is designed to trap sand and other solids and prohibit its entry into the sewer system.

5. Neutralizing Device.

A neutralizing device is a tank or manufactured device installed to dilute or neutralize acids or corrosive liquids prior to discharge onto collector lines. Such devices shall be automatically provided with a sufficient intake of diluting water or neutralizing medium, so as to make its contents non-injurious before being discharged into the collection system.

C. GENERAL REQUIREMENTS

The following administrative, operational, and other general requirements are applicable to all food service establishments, new or existing. Particular requirements for grease trap/interceptor construction, specifically pertaining to both new and existing food service establishments, can be found in Section D of this Standard.

1. ALL FOOD SERVICE ESTABLISHMENTS IN THE PUI SERVICE AREA SHALL HAVE GREASE-HANDLING FACILITIES APPROVED BY PUI. Establishments whose grease handling facilities are not in accordance with this Standard shall be given a compliance schedule with a deadline not to exceed eight (8) weeks from initial notification date.
2. All food service establishment grease handling facilities/operations shall be subject to periodic review, evaluations, and inspections by PUI representatives at any time. Results of inspections will be made available to facility owners with overall ratings assigned and recommendations for correction/improvement (if necessary) delineated. A PUI REPRESENTATIVE MUST BE PRESENT AT ALL PUMP-OUT OPERATIONS.
3. VIOLATIONS OF THIS STANDARD WILL BE CONSIDERED GROUNDS FOR DISCONTINUANCE OF SEWER SERVICE. PUI HAS THE RIGHT TO TERMINATE A CUSTOMER'S SERVICE WITHOUT NOTICE.

4. Food service establishments whose operations cause or allow excessive grease to discharge or accumulate in the sewer collection system are liable to PUI for all costs related to PUI service calls for line blockages, line cleanings, line and pump repairs, property damages, etc. including all labor, materials, equipment, and overhead. Failure to pay all service-related charges may also be grounds for sewer service discontinuance.
5. PUI will recommend to the Owner(s) the frequency of the grease removal. It will be the responsibility of the Owner to contract the grease removal provider and ensure that the provider is removing the grease based on the recommended frequency. In maintaining the grease interceptors, the Owner(s) shall be responsible for the proper removal and disposal by appropriate means of the captured material and shall maintain on site records of dates, and means of disposal which are subject to review by PUI.

The Owner(s) should ensure that all solids are removed when no more than 75% of the interceptor's capacity is reached.

Failure to comply with the recommended frequency schedule may be grounds for sewer service discontinuance.

6. Any food service establishment whose effluent is suspected or perceived by PUI to contain a concentration of greater than 100 mg/l of oil and grease may be required to routinely sample their grease trap effluent and have it analyzed for oil and grease at the expense of the Owner and furnish a copy of the analysis to PUI.
7. All grease traps/interceptors shall be designed, installed, and located in accordance with this Standard to allow for complete access to inspection, maintenance, etc.
8. All grease traps/interceptors must be installed by properly licensed contractors.
9. Should a deficiency in the maintenance of the grease trap be noted during an inspection by PUI, a citation for correction may be given to the facility. The facility must correct the deficiency within five (5) calendar days following that date.

D. CONSTRUCTION STANDARDS

1. New Facilities
 - a. All newly constructed (or newly located) food service establishments shall be required to install a grease interceptor, approved by PUI. Grease interceptors shall be sized at 20 gallons per food service seat with no interceptor less than 1,000 gallons total capacity.

- b. New facilities must have a are required to complete an initial grease trap application to install a grease trap and submit such application with plans, specifications, plumbing diagrams, riser diagrams, etc. to PUI for review.
- c. All grease trap/interceptor plans and specifications must be reviewed and approved by PUI prior to installation. An approval letter for each new trap will be issued by PUI prior to construction and/or installation.
- d. The construction and location criteria for grease interceptors must be in accordance with the Environmental Protection Agency (EPA) Guidance Document, "On-site Wastewater Treatment and Disposal Systems," Chapter 8.
- e. All grease interceptors, whether singular or in series, must be directly accessible from the surface and must be fitted with an extended inlet sanitary tee that terminates 12" above the tank floor. The minimum access opening dimensions shall be 18" by 18" or a minimum of 24" in diameter. Two (2) access openings (inlet and outlet chambers) to underground traps are required and should be removable with ease by one person and accessible from the surface. All grease interceptors must have an elder valve. A typical grease trap is provided in detail as Appendix A to this Standard.
- f. Maintenance of grease traps/interceptors must include thorough pump-out and/or cleaning as needed, with a minimum frequency of six (6) times per year per Section C, Paragraph 5 of this Standard. Maintenance contracts may be required to be submitted to PUI as called for in Section C, Paragraph 5. The Owner, however, is ultimately responsible for proper maintenance of the grease trap facility(ies).
- g. No new food service facility will be allowed to initiate operations until grease handling facilities are installed and approved by PUI.

2. Existing Facilities

- a. All existing food service establishments (or renovated or expanded establishments) must have grease handling facilities approved by PUI. Failure to comply with this Standard will be considered a violation of the rate schedule and will subject the establishment to sewer service discontinuance.
- b. Wastewater from dishwashers and garbage grinders should not be discharged to grease traps/interceptors, unless approved by PUI.
- c. In the maintaining of existing grease traps/interceptors, the Owner(s) shall be responsible for the proper removal and disposal by appropriate means

of the captured material and shall maintain records of the dates and means of disposal which are subject to review by PUI, per Section C, Paragraph 5 of this Standard.

- d. In the event of an existing food service establishment's grease handling facilities are either under-designed, substandard, or poorly operated, the Owner(s) will be notified in writing, of the required improvements and given a compliance deadline not to exceed eight (8) weeks to conform with the requirements of this Grease Standard. This does not include general grease removal violations referred to in Section C, Paragraph 9 of this Standard.
- e. Any use of enzymes or other grease solvents, emulsifiers, etc. in lieu of physical cleaning is not considered acceptable grease trap maintenance practice.

3. New Food Service Establishments in Existing Buildings

- a. Where practical, new food service establishments locating in existing buildings will be required to comply with the Grease Trap Standards applicable to new facilities, i.e., outdoor grease traps units (minimum size 1,000 gallons) shall be installed. Flow control fittings and/or automatically cleaned units will be required in all cases. Maintenance contracts and/or clean-out records will also be required.

E. SAND, OIL AND GREASE INTERCEPTOR

- 1. Provide precast concrete vault.
 - a. 4000 psi concrete.
- 2. Other construction and/or prefabricated materials may be considered by PUI. Shop drawing submittal and approval by PUI shall precede any construction or installation.

F. LOCATING

- 1. Easily accessible for cleaning and solids removal.

G. MANHOLE FRAMES AND COVERS

- 1. Provide grey iron castings, ASTM A48, Class 30 iron.
- 2. Machine all bearing surfaces.
- 3. Coat frames and covers with two shop coats of bitumastic paint.

4. Provide watertight covers, where indicated, conforming to above requirements and with frame tapped for four bolts, countersunk in cover.
 - a. Provide rubber gasket between frame and cover.

H. ENFORCEMENT

1. Enforcement of this Standard shall be in accordance with the provisions of PUI rate schedule and applicable law. FAILURE TO COMPLY WITH THIS STANDARD MAY BE GROUNDS FOR DISCONTINUANCE OF SEWER SERVICE WITHOUT NOTICE. ADDITIONALLY, FAILURE TO COMPLY MAY RESULT IN NOTIFICATION TO THE COUNTY HEALTH DEPARTMENT FOR REQUEST OF ENFORCEMENT ACTION WHICH MAY LEAD TO REVOCATION OF FOOD SERVICE PERMITS.
2. For new food service establishments, PUI may elect to request from appropriate building official that certificates of occupancy be withheld until compliance with PUI's requirements, including grease trap compliance is fully met.

Appendix A

Example of a grease trap design

4" OR 6" PVC
SANITARY SEWER
SERVICE (TYP.)

$\frac{2}{3} L$

$\frac{1}{3} L$

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MANHOLE FRAME & COVER
(GROUT IN PLACE)(TYP.)

PVC COUPLING
(GROUT IN PLACE)
(TYP.)

$\frac{W}{2}$

$\frac{W}{2}$

W

PLAN

ANTI-FLOATATION

4" ELDER VALVE
w/ 4" PLUG

4" PVC CLEANOUT
w/ CONCRETE DONUT

PROVIDE H-20 LOADING MH &
CLEANOUT COVERS WHERE REQUIRED.

4" PVC CLEANOUT
w/ CONCRETE DONUT

FINISHED
GRADE

FLOW

OPEN END
(TYP.)

WATER LEVEL

1'-0"
(MIN.)

ALL PIPING TO BE
SCHED. 40 PVC

2'-0"

2'-0"

PRECAST
CONCRETE
VAULT

DESIGN FOR
ANTI-FLOATATION

8" MIN.
GRAVEL

FLOW

PROFILE

NOTES:

1. ALL PROPOSED GREASE TRAP PLANS TO BE SUBMITTED & APPROVED BY PALMETTO UTILITIES, INC. PRIOR TO INSTALLATION.
2. ELDER VALVE MUST BE INSTALLED.
3. MINIMUM CAPACITY 20 gal. PER SEAT.
4. CALL (803) 699-2422 FOR INSPECTION.

PALMETTO UTILITIES STANDARD GREASE TRAP WITH ELDER VALVE

SCALE: 1/2"=1'-0"

GREASE TRAP WITH ELDER VALVE.dwg

8/19/09

PALMETTO UTILITIES, INC.
SAND, OIL, AND GREASE
INTERCEPTOR STANDARDS FAQs

Effective August 1, 2009 Palmetto Utilities, Inc. adopted standards in an effort to reduce the amount of pollutants entering our system. Due to the high volume of calls received regarding these standards, Palmetto Utilities, Inc. has developed this "Frequently Asked Questions" memorandum to answer questions. Please feel free to call PUI's office at (803) 699-2422 if you have any further questions.

Frequently Asked Questions

Why is Palmetto Utilities, Inc. making its customers upgrade their grease traps?

Palmetto Utilities, Inc.'s goal in adopting these standards is to reduce the amount of pollutants, notably grease, in its system. The accumulation of grease in lines, lift stations, and treatment works is a problem that could result and has resulted in clogging and backups and in significant costs. Importantly, these are the same standards that are used by other local utilities and are widely-accepted industry standards.

In the past, PUI's only requirement was that restaurant establishments have a grease trap, and the design and maintenance of the grease traps was left to the establishments. Two years of observing grease in the system indicated to PUI the prior standards were ineffective. This appears to be largely the result of improperly installed grease traps, the installation of inefficient grease traps, and a failure to maintain existing grease traps. As a result, it was clear that PUI must take stronger and more proactive measures to protect its system. It then developed the August 1, 2009 standards that are applicable system-wide.

Who will pay for these upgrades?

Palmetto Utilities, Inc. takes no position on who is responsible for payment, only that the upgrades must be made. Ultimately, it is the customer that PUI will hold responsible for complying with the standards.

How long will I have to make these upgrades?

Palmetto Utilities, Inc., pursuant to the Standards, provides each establishment 8 weeks after notification to complete the upgrades. Notification will occur (or, in many cases has occurred) at the regularly scheduled pump-out of the installed traps or at an inspection of the establishment's facilities. The inspection report issued to the establishment will indicate the results of the inspection, including any disapproval of the facilities (e.g., the trap) and a compliance date by which any deficiencies should be resolved.

Why are the existing grease traps not subject to a "grandfather clause"?

Based on experience and observation, the existing grease traps are ineffective, and therefore pollutants such as grease are being introduced into the system and causing harm to the system, including increased costs. PUI has determined that the application of the Standards across its system should significantly assist in reducing the pollutants into the system. If PUI allowed all existing traps to remain in place, there would be little improvement in system performance.

How do I benefit from these grease trap upgrades?

Everyone benefits from preserving the integrity of the wastewater system. This should reduce backups and overflows and reduce maintenance costs.

Also, PUI's pump-out frequency is based on whether or not a visual inspection indicates that grease is leaving the effluent pipe and entering PUI's system. The standard frequency is one pump-out every four weeks. However, in some cases the upgrades will improve the efficiency of the facilities to the degree that pump-outs are less frequent.

Once all of the upgrades are complete and the facilities meet the Standards, PUI will permit the use of an effluent water test to determine the frequency of pump-outs. This test is performed at customer's expense and with PUI's approval. If the grease content in the water meets certain criteria, PUI may be able to adjust the frequency. This may require more than one effluent test. However, if, for example, a customer is on a four-week schedule and the upgrade allows the customer to switch to an eight-week schedule, then the upgrade costs will pay for themselves within several years.

Once I make these upgrades will Palmetto Utilities, Inc. ask me to make more upgrades in the future?

Palmetto Utilities, Inc.'s goal in adopting the Standards is to reduce the amount of pollutants introduced into the system. These upgrades, combined with timely removal of the traps, should reduce the pollutants entering the system. However, the Standards may be revised from time-to-time in response to changes in environmental regulations, changes in utility regulation, and changes in circumstances on the system.

What happens if I refuse to make the upgrades?

Pursuant to its authorized and approved rate schedule and state law, Palmetto Utilities, Inc. has the authority to require additional construction (including traps) to protect its wastewater system from pollutants. See S.C. Public Service Commission Order 2000-0481 (June 7, 2000); Rate Schedule § 8. Refusal to comply with the Standards is grounds for termination of service both for refusing to comply with an applicable standard and because a failure to comply results in the direct introduction of pollutants into PUI's system.